IN THE SPECIFICATION

On page 9, please delete the paragraph at lines 9-7 and replace with the following:

(Non-Patent Document 6) The National Center for Biotechnology Information, retrieved from the Internet: <URL: http://www.ncbi.nlm.nih.gov/PMGifs/Genomes/micr.html>~~http://www.ncbi.nlm.nih.gov/PMGifs/Genomes/micr.html~~.

On page 18, line 29, please delete the paragraph and insert therein the following:

Fig. 10 shows DNA sequences of ScSSU1 (SEQ ID NO: 34) and non-ScSSU1 (SEQ ID NO:1).

On page 19, line 1, please delete the paragraph at this line and insert the following:

Fig. 11 shows DNA sequences of ScMET4 (SEQ ID NO: 35) and non-ScMET4 (SEQ ID NO: 2).

On page 30, please delete the paragraphs at lines 14-28 and insert the following:

Identification of ORF in the DNA sequence assembled in (f) is carried out. Preferred examples are specifically mentioned below. With regard to a certain length DNA sequence (such as not less than 150 base) embraced by initiation codon and termination codon, there can be carried out identification of ORF existing in a DNA sequence assembled in (f) using a program, such as ORF finder (Retrieved from Internet: <URL:http://www.ncbi.nih.gov/gorf/gorf.html>) or the like for the identification of ORF for six kinds of reading frames including complementary sequence.

Assignment of function of protein encoded by the identified ORF can be carried out using a homology searching such as BLAST (Retrieved from Internet:URL:http://www.ncbi.nlm.nih.gov/ BLAST>) the like to an amino acid sequence of ORF of S. cerevisiae that has been registered and published in the Saccharomyces Genome Ddatabase (Retrieved from Internet:<URL:http://genome-www.standford.edu/Saccharomyces/>).

On page 66, please delete the paragraph beginning at line 14, and replace with the following:

DC\579119\1

Identification of ORF (open reading frame) in the DNA sequence assembled in
Example 5 was carried out. The examples are specifically shown below. Identification of
ORF existing in the DNA sequence assembled in Example 5 was carried out using a available
program using ORF finder (Retrieved from Internet: <URL:
http://www.ncbi.nih.gov/gorf/gorf.html≥) for identification of ORF for six kinds of reading
frames in the sequence with the length of not less than 150 bases from initiation codon to
termination codon including its complementary sequence. Assignment of function of the
extracted ORF was carried out by homology searching of amino acid sequence of ORFs of S.
cerevisiae that have been registered at the SGD and published. Table 2 shows examples of
the ORF name of S. cerevisiae corresponding to the result of assignment of function of ORF
existing in the non-Sc genome. From the left side of the table, name of the ORF existing on
the brewing yeast, ORF length in polynucleotide, ORF length in polypeptide, name of the
ORF of S. cerevisiae determined by homology searching, identity, coincided length and
functions of the gene are shown.

On page 88, please replace Table 4 with the following Table 4 provided on the next
page:

Probe set	(1) zinc deplete/zinc replete			(2) oxidative stress/zinc replete			(3) carbon starvation/zinc replete			Annotation	
	Signal Log Ratio	Detection	Change	Signal Log Ratio	Detection	Change	Signal Log Ratio	Detection	Change	Gene Name	Type
Sc-1159-1 at	3.1	P	1	-0.6	A	NC	-0.5	A	NC	YGL258W	Sc
Lg-4570-1 at	1.2	P	1	0.1	P	NC	-0.7	A	D	YNL254C	Non-Sc
Sc-1161-1 at	1.1	P	1	-1.1	P	D	-1.2	P	D	YGL256W	Sc
Lg-3847-1 at	0.9	P	1	-0.6	P	D	-1.1	P	D	YGL256W	Non-Sc
Sc-2889-1 at	0.7	P	1	-0.5	P	D	-1.8	P	D	YNL254C	Sc
Lg-4216-1 s at	0.6	P	1	-0.6	P	D	-0.4	P	D	YKL175W	Non-Sc
Sc-5030-1 at	0.5	P	1	-3.6	P	D	-3.8	P	D	YOL154W	Sc
Sc-1160-1 at	0.4	P	1	-1.1	P	D	-0.9	P	D	YOL257C	Non-Sc
Lg-1751-1 at	0.4	P	1	-1	P	D	-0.7	P	D	YLR209C	Sc
Sc-3567-1 at	0.4	P	1	0.2	P	NC	-0.4	P	NC	YPL148C	Non-Sc
Lg-3161-1 at	0.4	P	1	-0.8	P	D	-0.9	P	D	YMR020W	Sc
Sc-3984-1 x at	0.4	P	1	0.2	P	NC	-1.3	P	D	YDL130W	Non-Sc
Lg-4390-2 x at	0.4	P	1	0.3	P	NC	-0.5	P	NC	YLR339C	Sc
Sc-4798-1 at	0.4	P	1	0.2	P	NC	-2.3	P	D	YLR435W	Non-Sc
Lg-5145-1 s at	0.4	P	1	0.2	P	NC	-2.3	P	D	YDR312W	Sc
Lg-139-1 at	0.3	P	1	-0.3	P	NC	-4.1	A	D	YBR104W	Non-Sc
Lg-467-1 at	0.3	P	1	0.1	P	NC	-2	P	D	YDR161W	Non-Sc
Sc-1412-1 at	0.3	P	1	0	P	NC	-2	P	D	YGR081C	Non-Sc
SLg-961-1 at	0.3	P	1	0.2	P	NC	-1.5	P	D	YGR103W	Sc
Sc-2122-1 at	0.3	P	1	-0.3	P	NC	0.1	P	NC	YKL176C	Non-Sc
Sc-2123-1 at	0.3	P	1	-0.5	P	D	-1.1	P	D	YKL175W	Sc
Sc-2209-1 at	0.3	P	1	0.2	P	NC	-1.7	P	D	YKL072W	Sc
Sc-2356-1 at	0.3	P	1	-0.1	P	NC	-2.4	P	D	YLR129W	Sc
Lg-1955-1 at	0.3	P	1	-0.1	P	NC	0	P	NC	YMR096W	Sc
Sc-2890-1 at	0.3	P	1	-0.3	P	NC	-1.2	P	D	YNL253W	Non-Sc
Lg-2100-1 at	0.3	P	1	-0.8	P	D	-1.7	P	D	YNL217W	Non-Sc
Lg-2258-1 at	0.3	P	1	0.1	P	NC	-1.8	P	D	YOL125W	Non-Sc
Sc-3203-1 at	0.3	P	1	0.1	P	NC	-0.8	P	D	YOL022C	Sc
Sc-3651-1 s at	0.3	P	1	0.1	P	NC	-0.1	P	NC	YPR044C	Sc
Lg-2648-1 at	0.3	P	1	0.1	P	NC	-2.1	P	D	YPR048W	Non-Sc
Lg-3014-1 at	0.3	P	1	-0.7	P	D	-0.3	P	NC	YJL055W	Non-Sc
Sc-4034-1 at	0.3	P	1	0.1	P	NC	0.3	P	NC	YDR017C	Sc
Lg-3670-1 at	0.3	P	1	0.4	P	NC	-2.1	P	D	YDR087C	Non-Sc

4

Sc-4163-1 at	0.3	P	1	0.1	P	NC	-2.5	M	D	YDR449C	Sc
Sc-4365-1 at	0.3	P	1	0.3	P	NC	-1.4	P	D	YGR145W	Sc
Sc-4454-1 at	0.3	P	1	0.4	P	NC	-1.8	P	D	YHR197W	Sc
Lg-4608-2 at	0.3	P	1	-0.3	P	D	-1.9	P	D	YNI112W	Non-Sc
Lg-4622-1 at	0.3	P	1	0.1	P	NC	-2.5	P	D	YNL062C	Non-Sc
Sc-5321-1 at	0.3	P	1	0.4	P	NC	-1.1	P	D	YGR272C	Sc
Lg-5125-1 at	0.3	P	1	0.2	P	NC	-2.4	P	D	YOR101C	Non-Sc

5

On page 93, please replace Table 8 with the following Table 8

Probe	Signal of PM Probe	Signal of MM Probe			SEQ ID NO
Mt-6a at 653 337	112.38	634.39	DNA Sequence of PM	GAATCAATTAACTTATGGTTTCTTA IIIIIIIIIIII IIIIIIIIIIIII	33
			DNA Sequence of tested strain	GAATCAATTAACATATGGTTTCTTA IIIIIIIIIIIIIIIIIIIIIIIIII	36
			DNA sequence of MM	GAATCAATTAACATATGGTTTCTTA	37

Please replace Fig. 10 with the Substitute Sheet for Fig. 10.

Please replace Fig. 11 with the Substitute Sheet for Fig. 11.

DC\579119\1